ACTUATING USER INTERFACE FOR MEDIA PLAYER

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation of U.S. patent application Ser. No. 16/267,966 (now U.S. Publication No. 2019/0171313), filed Feb. 5, 2019, which is a continuation of U.S. patent application Ser. No. 14/850,901 (now abandoned), filed Sep. 10, 2015, which is a continuation of U.S. patent application Ser. No. 14/527,585 (now abandoned), filed Oct. 29, 2014, which is a continuation of U.S. patent application Ser. No. 11/477,469 (now abandoned), filed Jun. 28, 2006, which is a continuation of U.S. patent application Ser. No. 11/057,050 (now abandoned), filed Feb. 11, 2005, and a continuation-in-part of U.S. patent application Ser. No. 10/643,256, filed Aug. 18, 2003, now U.S. Pat. No. 7,499,040, the entire contents of which are incorporated herein by reference for all purposes.

[0002] In addition, this application is related to the following applications, which are all herein incorporated by reference in their entirety for all purposes:

[0003] U.S. patent application Ser. No. 10/840,862 (now U.S. Pat. No. 7,663,607), titled "MULTIPOINT TOUCHSCREEN," filed May 6, 2004; and U.S. patent application Ser. No. 10/903,964 (now U.S. Pat. No. 8,479,122), titled "GESTURES FOR TOUCH SENSITIVE INPUT DEVICES," filed Jul. 30, 2004.

BACKGROUND OF THE INVENTION

Field of the Invention

[0004] The present invention relates generally to electronic devices. More particularly, the present invention relates to an electronic device having an actuating user interface.

Description of the Related Art

[0005] There exists today many types of consumer electronic devices, each of which utilizes some sort of user interface. The user interface typically includes an output device in the form of a fixed display, such as an Liquid Crystal Display (LCD), and one or more input devices. The input devices can be mechanically actuated as for example, switches, buttons, keys, dials, joysticks, navigation pads, or electrically activated as for example touch pads and touch screens. The display is typically configured to present visual information such as text and graphics, and the input devices are typically configured perform operations such as issuing commands, making selections or moving a cursor or selector in the consumer electronic device. Each of these well known devices has considerations such as size and shape limitations, costs, functionality, complexity, etc. that must be taken into account when designing the consumer electronic device. In most cases, the user interface is positioned on the front face of the electronic device for easy viewing of the display and easy manipulation of the input devices.

[0006] FIGS. **1**A-**1**F are diagrams of various handheld electronic devices including for example a telephone **10**A (FIG. **1**A), a PDA **10**B (FIG. **1**B), a media player **10**C (FIG. **1**C), a remote control **10**D (FIG. **1**D), a camera **10**E (FIG. **1**E), and a GPS module **10**F (FIG. **1**F). FIGS. **1**G-**1**I, on the other hand, are diagrams of other types of electronic devices including for example a laptop computer **10**G (FIG. **1** G), a stereo **10**H (FIG. **1**H), and a fax machine **101** (FIG. **1**I). In each of these devices **10**, a display **12** is secured inside the housing of the device **10**. The display **12** can be seen through an opening in the housing, and is typically positioned in a first region of the electronic device **10**. One or more input devices **14** are typically positioned in a second region of the electronic device **10** next to the display **12** (excluding touch screens, which are positioned over the display).

[0007] To elaborate, the telephone **10**A typically includes a display **12** such as a character or graphical display, and input devices **14** such as a number pad and in some cases a navigation pad. The PDA **10**B typically includes a display **12** such as a graphical display, and input devices **14** such as a touch screen and buttons. The media player **10**C typically includes a display **12** such as a character or graphic display, and input devices **14** such as buttons or wheels. The iPod® brand media player manufactured by Apple Computer, Inc. of Cupertino, Calif. is one example of a media player that includes both a display and input devices disposed next to the display. The remote control **10**D typically includes an input device **14** such as a keypad and may or may not have a character display **12**. The camera **10**E typically includes a display **12** such as a graphic display and input devices **14** such as buttons. The GPS module **10**F typically includes a display **12** such as graphic display and input devices **14** such as buttons, and in some cases a navigation pad. The laptop computer **10**G typically includes a display **12** such as a graphic display, and input devices **14** such as a keyboard, a touchpad and in some cases a joystick. The iBook® brand notebook computer manufactured by Apple Computer, Inc. of Cupertino, Calif. is one example of a laptop computer that includes both a display and input devices disposed next to the display (e.g., in a base). The stereo **10**H typically includes a display **12** such as a character display, and input devices such as buttons and dials. The fax machine **101** typically includes a display **12** such as a character display, and input devices **14** such as a number pad and one or more buttons.

[0008] Although the user interface arrangements described above work well, improved user interface devices, particularly ones that can reduce the amount of real estate required and/or ones that can reduce or eliminate input devices, are desired. By reducing or eliminating the input devices, the display of the electronic device can be maximized within the user interface portion of the electronic device, or alternatively the electronic device can be minimized to the size of the display.

[0009] There also exists today many styles of input devices for performing operations on consumer electronic devices. The operations generally correspond to moving a cursor and making selections on a display screen. By way of example, the input devices may include buttons, switches, keyboards, mice, trackballs, touch pads, joy sticks, touch screens and the like. Each of these input devices has advantages and disadvantages that are taken into account when designing the consumer electronic device. In handheld computing devices, the input devices are generally selected from buttons and switches. Buttons and switches are generally mechanical in nature and provide limited control with regards to the movement of a cursor (or other selector) and making selections. For example, they are generally dedicated to moving the cursor in a specific direction (e.g., arrow keys) or to making specific selections (e.g., enter, delete,